

N36-136495 M/TH **AFTER FINAL: EXPEDITED ACTION** 02410250aa
Amendment dated 01/24/2005 Reply to office action mailed 11/05/2004

The following is a complete listing of all claims in the application, with an indication of the status of each:

Listing of claims:

- 1 1. (currently amended) A polarizing filter having a laminate structure,
2 comprising:
 - 3 a first group of dielectric thin film materials;
 - 4 a second group of dielectric thin film materials; and
 - 5 a third layer of dielectric thin film material,
6 wherein a plurality of dielectric materials different from one another in
7 refractive index with respect to a wavelength of incident light are classified
8 into said first group and said second group so that a maximum value among
9 the refractive indices of the dielectric materials belonging to said first group is
10 lower than a minimum value among the refractive indices of the dielectric
11 materials belonging to said second group;
 - 12 wherein at least one layer of dielectric thin film selected from the
13 dielectric materials belonging to said first group and at least one layer of
14 dielectric thin film selected from the dielectric materials belonging to said
15 second group are alternately laminated to form said laminate structure, said
16 laminate structure being mounted on a transparent flat substrate beginning
17 with a first layer adjacent to said transparent flat substrate;
 - 18 wherein said third layer of dielectric thin film has a refractive index
19 which is higher than the maximum value selected from said refractive indices
20 of the dielectric materials belonging to said first group and which is lower
21 than the minimum value selected from said refractive indices of the dielectric
22 materials belonging to said second group and is laminated on an outermost

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23 surface of said laminate structure, said laminate structure being between said
24 third layer and said transparent flat substrate; and

25 wherein said first layer includes the dielectric thin film selected from
26 the dielectric materials belonging to said second group; and

27 wherein said polarizing filter polarizes non-polarized light into
28 polarized light having an s-polarized light component and a p-polarized light
29 component, the transmittance ratio of the s-polarized light component to the p-
30 polarized light component being in the range of 0.2 to 1.0.

1 2. (canceled)

1 3. (previously presented) A polarizing filter according to Claim 1, wherein
2 one to four layers of dielectric thin films selected from said first group and one
3 to four layers of dielectric thin films selected from said second group are
4 laminated alternately on said transparent flat substrate.

1 4. (previously presented) A polarizing filter according to Claim 1, wherein a
2 refractive index difference with respect to the wavelength of incident light
3 between adjacent dielectric thin films selected from the dielectric materials
4 belonging to said first and second groups respectively is in a range of from
5 0.15 to 1.2, both inclusively.

1 5. (previously presented) A polarizing filter according to Claim 1, wherein
2 optical film thickness of each of said dielectric thin films is in a range of
3 $0.25\lambda \pm 0.15\lambda$ in which λ is a wavelength of incident light.

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1 6. (previously presented) An optical device using a polarizing filter defined
2 in Claim 1, wherein an angle of incidence on said polarizing filter is in a range
3 of from 20 to 70 degrees.

1 7-8. (canceled)

1 9. (previously presented) A polarizing filter according to claim 1, wherein a
2 total number of layers of dielectric thin film is at least three layers and not
3 larger than seven layers.

1 10. (currently amended) A polarizing filter according to claim 1, wherein the
2 refractive index of said layer on an outermost surface is 1.62 ~~or 1.46~~.

1 11. (previously presented) A polarizing filter according to claim 1, wherein
2 said layers are constructed by three layers, the refractive index of the first layer
3 is 2.13, the refractive index of the second layer is 1.46, and the refractive
4 index of the layer on an outermost surface is 1.62.

1 12. (currently amended) A polarizing filter according to claim 1, wherein
2 said layers are constructed by three layers, the refractive index of the first layer
3 is 2.13, the refractive index of the second layer is 1.40, and the ~~first~~ refractive
4 index of the said layer on an outermost layer surface is 1.46.

1 13. (currently amended) A polarizing filter according to claim 1, wherein
2 said at least three layers are constructed by seven layers, the refractive indexes
3 of the first to sixth layers are 2.13, 1.46, 2.13, 1.46, 2.13 and 1.46,

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4 respectively, and the refractive index of ~~the said layer on an outermost layer~~
5 ~~surface is 1.62.~~

1 14. (currently amended) A polarizing filter according to claim 1, wherein
2 said at least three layers are constructed by five layers, the refractive indexes
3 of the first to fourth layers are 2.13, 1.46, 2.13 and 1.46, respectively, and the
4 ~~first~~ refractive index of ~~the said layer on an outermost layer~~~~surface is 1.62.~~

1 15-22. (canceled)